

**A METHOD AND SYSTEM FOR TEMPORARY ATTACHMENT OF A CONTAINER TO  
A VEHICLE**

CROSS-REFERENCE TO RELATED APPLICATION

- 5 This application claims priority pursuant to 35 U.S.C. § 119(e) to U.S. Provisional Application Number 60/399,683, filed July 31, 2002, which application is specifically incorporated herein, in its entirety, by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

- 10 The present invention relates to a method and system for temporarily attaching a squeeze bottle to a vehicle.

2. Description of Related Art

- Car detailers apply wax to an exterior surface of a vehicle in order to provide a shiny appearance to the exterior surface. Liquid wax is typically stored in squeeze bottles, and detailers pour or squirt the wax from the squeeze bottle onto a cloth, sponge or buffing pad or directly pour or squirt the wax onto the exterior surface of the vehicle. The detailers then apply the wax to the exterior surface of the vehicle with the cloth, sponge or buffing pad. The process of pouring or squirting wax from the squeeze bottle is typically repeated each time the detailer applies wax to a different portion of the vehicle. After the wax is poured or squirted from the squeeze bottle, and while the detailer is applying wax to the exterior surface, the detailer must set the squeeze bottle somewhere.

- When the squeeze bottle is set on the ground, detailers oftentimes accidentally kick the squeeze bottle, causing wax to spill from the squeeze bottle, or misplace the squeeze bottle. Other times, the detailers set the squeeze bottle on the vehicle, but

because most vehicles have aerodynamic exterior surfaces that are not flat, the squeeze bottle rolls or falls off of the vehicle.

In an attempt to remedy the aforementioned problems, some detailers resorted to aprons that have pockets to hold the squeeze bottles. The detailers would place the  
5 squeeze bottle into one of the pockets in the apron after pouring or squirting wax from the squeeze bottle and while applying wax to the exterior surface of the vehicle. The use of aprons, however, also has shortcomings. For example, while the squeeze bottle is positioned within an apron pocket and the detailer is leaning over the exterior surface of the vehicle while applying wax, the torso of the detailer presses against the squeeze  
10 bottle and, sometimes, sandwiches the squeeze bottle between the detailer's torso and the exterior surface of the car. As a result, the squeeze bottle is slightly compressed, causing wax to leak from the squeeze bottle.

Thus, there is a need for a system and method for placing a squeeze bottle in a convenient location while a detailer applies material, such as wax, to an exterior surface  
15 of a vehicle without the shortcomings of the prior art.

### SUMMARY OF THE INVENTION

The present invention provides a method and system for temporarily attaching a squeeze bottle to a vehicle that addresses the shortcomings of the prior art. In particular, pursuant to the invention, users may temporarily attach a squeeze bottle to  
20 an exterior surface of the vehicle while applying material, such as wax, to portions of the exterior surface of the vehicle. In this manner, the user knows where the location of the squeeze bottle is and does not risk the squeeze bottle sliding off of the vehicle because the squeeze bottle is temporarily attached to the vehicle.

Pursuant to a first embodiment of the invention, a bottle attachment device  
25 includes a bottle holder that comprises a cup. The cup includes a conical sleeve that is connected to a circular bottom. The squeeze bottle may be positioned within the cup and rest atop of the circular bottom. The bottle holder is connected to an attachment device, which is a magnet, and the attachment device is connected to a cushion, which

is a rubber boot. The bottle attachment device is positioned so that the magnet is adjacent to the exterior surface of the vehicle and temporarily attaches the bottle attachment device to the exterior surface. When the bottle attachment device is temporarily attached to the exterior surface, the rubber boot is positioned between the magnet and the exterior surface. In this manner, the rubber boot prevents the magnet from contacting, and possibly damaging, the exterior surface of the vehicle.

Pursuant to a second embodiment, the bottle holder includes an adjustable strap having first and second sides. The first and second sides include positive and negative surfaces, respectively, that cooperate with one another when the strap is wrapped around the squeeze bottle. The strap is secured to the squeeze bottle when it is wrapped around the squeeze bottle. The attachment device, which is a magnet, and the cushion, which is a rubber boot, are connected to each other and the adjustable strap. The bottle attachment device is positioned so that the magnet is adjacent to the exterior surface of the vehicle and so that the magnet temporarily attaches the bottle attachment device to the exterior surface of the vehicle. The rubber boot is positioned between the magnet and the exterior surface when the bottle attachment device is temporarily attached to the exterior surface. In this manner, the rubber boot prevents the magnet from contacting, and possibly damaging, the exterior surface of the vehicle.

Pursuant to a third embodiment, the bottle holder and the cushion comprise a wrap that has inner and outer surfaces, first and second ends, and a body. In one embodiment, the body includes a negative surface and one of the ends includes a strip that has a positive surface. The wrap is wrapped around the squeeze bottle, and the positive strip of one of the ends cooperates with the negative surface of the body to secure the wrap to the squeeze bottle. The attachment device, which includes at least one magnet, is positioned between the inner and outer surfaces of the wrap. As a result, when the attachment device is positioned against the exterior surface, the inner surface of the wrap prevents the attachment device from contacting, and possibly damaging, the exterior surface of the vehicle.

Pursuant to a fourth embodiment, the bottle holder and the cushion comprise a sock that includes a body portion, a bottom surface connected to the body portion and a bottom portion. The squeeze bottle is positioned within the sock and rests against the bottom surface of the sock. The bottom portion includes a lower surface, and the attachment device, which is a magnet, is positioned within the bottom portion. The attachment device rests on the lower surface so that, when the attachment device is positioned against the exterior surface of the vehicle, the lower surface prevents the attachment device from contacting, and possible damaging, the exterior surface of the vehicle.

Pursuant to another embodiment of the invention, a user removes material from the squeeze bottle, positions the squeeze bottle within the bottle holder, and positions the attachment device, which is connected to the bottle holder, against an exterior surface of the vehicle. Thus, the bottle attachment device, with the squeeze bottle positioned therein, is temporarily attached to the exterior surface of the vehicle. While the bottle attachment device is temporarily attached to the exterior surface, the user applies the material to the exterior surface of the vehicle.

A more complete understanding of the method and system for temporary squeeze bottle attachment to a vehicle will be afforded to those skilled in the art, as well as a realization of additional advantages and objects thereof, by a consideration of the following detailed description of the preferred embodiment. Reference will be made to the appended sheets of drawings which will first be described briefly.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a plurality of temporary attachment systems, each incorporating a separate embodiment of a bottle attachment device of the invention;

Fig. 2 is a perspective view of a first embodiment of a bottle attachment device of the invention with a squeeze bottle;

Fig. 3 is a perspective view of a first embodiment of a bottle attachment device of the invention;

Fig. 4 is a front view of a first embodiment of a bottle attachment device of the invention;

Fig. 5 is a bottom view of a first embodiment of a bottle attachment device of the invention;

5 Fig. 6 is a front view of an alternate embodiment of a bottle attachment device of the invention;

Fig. 7 is a perspective view of another embodiment of a bottle attachment device of the invention;

10 Fig. 8 is a perspective view of a second embodiment of a bottle attachment device of the invention with a squeeze bottle;

Fig. 9 is a perspective view of a third embodiment of a bottle attachment device of the invention with a squeeze bottle;

Fig. 10 is a perspective view of a fourth embodiment of a bottle attachment device of the invention with a squeeze bottle; and,

15 Fig. 11 is a flow chart of a method pursuant to aspects of the invention.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention is directed towards a method and system for temporarily attaching a squeeze bottle to an exterior surface of a vehicle. In particular, the present invention is directed to a system and method in which a user, such as car detailer,  
20 applies wax or other materials stored in a squeeze bottle to an exterior surface of a vehicle in order to provide a shine to the exterior surface. Pursuant to aspects of the invention, the user may place the squeeze bottle into a bottle holder that is connected to an attachment device, such as a magnet, and temporarily attach the squeeze bottle to the exterior surface of the vehicle by positioning the magnet against the exterior  
25 surface. In this manner, the squeeze bottle is securely attached to the exterior surface of the vehicle and the detailer need not be concerned about the squeeze bottle rolling or falling off of the vehicle.

Fig. 1 shows a plurality of attachment systems 34, 36, 38, 40 pursuant to aspects of the invention. Each attachment system 34, 36, 38, 40 includes a bottle attachment device 100, 200, 300, 400 and a vehicle 22. Fig. 1 shows several embodiments of different bottle attachment devices 100, 200, 300, 400 temporarily attached to an exterior surface 24 of the vehicle 22. Users may temporarily attach and remove the bottle attachment devices 100, 200, 300, 400, with the squeeze bottles 26 positioned therein, from the vehicle 22 as desired.

Fig. 2 shows a first embodiment of a bottle attachment device 100 with a squeeze bottle 26 positioned within the assembly. As shown in Fig. 4, the bottle holder 102 is connected to an attachment device 112. In the first embodiment, the bottle holder is a cup 102, and as shown in Figs. 3 and 4, is comprised of a conical sleeve 104 integral with a bottom circular surface 106. Fig. 4 shows that the diameter  $D_{TE}$  of a top end 108 of the conical sleeve 104 is slightly larger than the diameter  $D_{BE}$  of a bottom end 110 of the conical sleeve 104. The larger top end diameter  $D_{TE}$  of the conical sleeve 104 allows the bottle holder 102 to accommodate a broad range of squeeze bottles 26. As shown in Figs. 1-4, the squeeze bottle 26 is positioned within the conical sleeve 104, and a bottom surface 30 of the squeeze bottle rests atop of the bottom circular surface 106 of the cup 102.

As shown in Figs. 2-5, the attachment device 112 is a magnet, which is ring shaped in one embodiment. The magnet 112 is positioned below the cup 102 and should have sufficient magnetic strength to secure the bottle attachment device and the squeeze bottle filled with material to the exterior surface of a vehicle. As shown in Figs. 1 and 2, the bottle attachment device 100 of the first embodiment is positioned so that the bottom surface 30 of the squeeze bottle 26 is adjacent to and is substantially parallel to the exterior surface 24 of the vehicle 22.

In the first embodiment, a cushion 114, which is rubber boot, is connected to the magnet 112. As shown in Figs. 1 and 4-5, the rubber boot 114 is positioned between the magnet 112 and the exterior surface 24 of the vehicle 22 when the magnet is temporarily attached to the exterior surface 24. Because the rubber boot separates the

magnet 112 from the exterior surface 24 of the vehicle 22, it prevents the magnet from damaging the exterior surface. Further, because the rubber boot 114 of the first embodiment 100 is comprised of rubber, it grips the exterior surface 24 and prevents the bottle attachment device 100 from slipping on the exterior surface.

5 Fig. 6 shows an alternate embodiment 150 of the bottle attachment device in which the bottle holder and the cushion further comprise a bottom piece 152. The attachment device is a magnet 154, which is circular. The bottom piece 152 is positioned below the magnet 154, and the magnet is positioned between a bottom surface 30 of the squeeze bottle and the bottom piece 152. In one embodiment, the  
10 bottom piece 152 is comprised of plastic and is integral with the bottom surface 30 of the squeeze bottle 26 and the attachment device 154.

Fig. 7 shows another embodiment 160 of the bottle attachment device in which the bottom piece 162 comprises a peripheral wall that extends beyond the bottom surface 30 of the bottle so that the peripheral wall forms a cavity 166. The attachment  
15 device is a magnet 164, which is circular. The magnet is connected to the bottom piece 162 (e.g., the peripheral wall) and positioned within the cavity 166. When the bottle attachment device 160 is positioned on an exterior surface 24 of the vehicle 22, the peripheral wall 162 contacts the exterior surface 24.

Fig. 8 shows a second embodiment of the bottle attachment device 200 in which  
20 the bottle holder is an adjustable strap 202 having first 204 and second 206 sides. The first side 204 includes a positive surface 208, and the second side 206 includes a negative surface 210. The strap 202 is wrapped around the squeeze bottle 26 so that the positive surface 208 of the first side 204 cooperates with the negative surface 210 of the second side 206 to secure the strap to the squeeze bottle 26. In one embodiment,  
25 the strap 202 is a hook and loop strap, e.g. Velcro™ strap, and the entire first 204 and second 206 sides include positive 208 and negative 210 surfaces, respectively, allowing the strap to accommodate a broad range of squeeze bottle 26 sizes.

The attachment device is a magnet 212, which can be ring shaped, and the cushion is a rubber boot 214. The magnet 212 and the rubber boot 214 are connected

to the strap 202. As shown in Figs. 1 and 8, the strap 202 is wrapped around the squeeze bottle 26 so that the positive 208 and negative 210 surfaces cooperate with one another to support the squeeze bottle 26 in place against the exterior surface 24 of the vehicle 22, when the magnet 212 is positioned against the exterior surface of the vehicle. In the second embodiment 200, when the magnet 212 is positioned against the squeeze bottle 26, the peripheral surface 32 of the squeeze bottle 26 is adjacent to the exterior surface 24 of the vehicle 22 and the bottom surface 30 of the squeeze bottle is substantially perpendicular to the exterior surface. In the second embodiment 200, the rubber boot 214 is positioned between the magnet 212 and the exterior surface 24 of the vehicle 22 to prevent the magnet from damaging the exterior surface of the vehicle.

Fig. 9 shows a third embodiment 300 of the bottle attachment device in which the bottle holder and the cushion comprise a wrap 302. The wrap 302 includes inner 304 and outer 306 surfaces, first 308 and second 310 ends and a body 312. In one embodiment (not shown), the first end includes a positive strip and the second end includes a negative strip. When the wrap is wrapped around an object, such as a squeeze bottle, the positive and negative strips cooperate with one another to fasten the strips, and thus the ends of the wrap, to one another. The wrap is then secured around the squeeze bottle. In another embodiment, the positive 314 and negative 316 surfaces are comprised of hook and loop material, e.g. Velcro™ material; and, the body 312 of the wrap 302 includes a negative surface 316 and either the first 308 or second 310 end includes a strip 314 having a positive surface. The positive surface of the strip 314 can cooperate with any portion of the negative surface 316 of the body 312 to fasten one end 308, 310 of the wrap 302 to the body of the wrap, allowing the wrap to accommodate a broad range of squeeze bottle sizes.

As shown in Figs. 1 and 9, the wrap 302 is wrapped around the squeeze bottle 26 so that the positive surface of the strip 314 and negative surface 316 (or positive and negative strips) cooperate with one another to hold the squeeze bottle in place against the exterior surface 24 of the vehicle 22, when the bottle attachment device 300 is temporarily attached to the exterior surface of the vehicle. When the bottle attachment



device 300 is temporarily attached, the peripheral surface 32 of the squeeze bottle 26 is adjacent to the exterior surface 24 of the vehicle 22 and the bottom surface 30 of the squeeze bottle 26 is perpendicular to the exterior surface. The attachment device 318 includes at least one magnet 318, which is circular in one embodiment, and is positioned between the inner 304 and outer 306 surfaces of the wrap 302. Because the magnet 318 is positioned between the inner 304 and outer 306 surfaces of the wrap 302, the inner surface of the wrap prevents the attachment device from coming into contact with, and possibly damaging, the exterior surface 24 of the vehicle 22.

Fig. 10 shows a fourth embodiment of the bottle attachment device 400 in which the bottle holder and the cushion comprise a sock 402. The sock 402 includes a body portion 404, a bottom surface 406 connected to the body portion, and a bottom portion 408 connected to the body portion. In one embodiment, the sock is comprised of a flexible, water resistant material, such as neoprene. The squeeze bottle 26 is positioned within the body portion 404 of the sock 402 and supported by the bottom surface 406 and bottom portion 408.

In the fourth embodiment 400, the attachment device comprises at least one magnet 410, which is circular in one embodiment and which is positioned within the bottom portion 408. The bottom portion 408 has a lower surface 412, and when the bottle attachment device 400 is temporarily attached to the exterior surface 24 of the vehicle 22, the lower surface 412 is positioned between the magnet 410 and the exterior surface 24 of the vehicle 22. In this manner, the exterior surface 24 is not damaged by the attachment device 410.

Fig. 11 shows a method for temporarily attaching a squeeze bottle to an exterior surface 24 of the vehicle 22 and applying material from the squeeze bottle to the vehicle. At step 502, a user removes the material 28 from the squeeze bottle 26 and, at step 504, the user positions the squeeze bottle within the bottle holder 102, 202, 302, 402. Note that, if an embodiment of the bottle attachment device in which the bottle holder is a bottom piece 152, 162 (Figs. 6 and 7) that is positioned below the lower surface 30 of the squeeze bottle 26, step 504 need not be performed. At step 506, the

user temporarily attaches the bottle holder 102, 202, 302, 402, which is connected to the attachment device 112, 154, 164, 212, 318, 410, to the exterior surface 24 of the vehicle 22. The user typically positions the bottle attachment device 100, 150, 160, 200, 300, 400 so that the attachment device 112, 154, 164, 212, 318, 410 is adjacent to the vehicle 22. As a result, by way of the attachment device 112, 154, 164, 212, 318, 410, the bottle attachment device 100, 150, 160, 200, 300, 400, with the squeeze bottle 26 positioned therein, is temporarily attached to the exterior surface 24 of the vehicle 22.

At step 508, the user applies the material to the exterior surface 24 of the vehicle 22. After the detailer has finished applying the material to a designated area of the exterior surface 24, depending on user preferences, the user may either remove the squeeze bottle 26 from the bottle holder 102, 202, 302, 402, at step 510, or remove the bottle attachment device 100, 150, 160, 200, 300, 400 with the squeeze bottle positioned within the bottle holder from the exterior surface, at step 512. The user then returns to step 502 and removes additional material from the squeeze bottle.

Note that, although the embodiments of the invention are described having a squeeze bottle 26 positioned within the bottle holder 102, 202, 302, 402, the invention may also be used with other containers or objects. For example, a container or other object, such as trigger sprayer bottles and metallic or plastic round cans, may be positioned within the bottle holder.

Having thus described a preferred embodiment of a method and system for temporary squeeze bottle attachment to a vehicle, it should be apparent to those skilled in the art that certain advantages of the within system have been achieved. It should also be appreciated that various modifications, adaptations, and alternative embodiments thereof may be made within the scope and spirit of the present invention. For example, bottle attachment devices using magnets as the attachment device has been illustrated, but it should be apparent that the inventive concepts described above would be equally applicable to other bottle attachment devices, such as attachment

devices comprising suction mechanisms. The invention is further defined by the following claims.